

## FINAL PLAN OF REMEDIAL ACTION

File# 1328 B9



## MARINA OVERLOOK SITE

*Marina Overlook  
Wilmington, Delaware*

*April 7, 2008  
DNREC Project No. DE-1328*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) intention to address environmental contamination at the Marina Overlook Site.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on March 2, 2008 and opened a 20-day public comment period. The Proposed Plan is attached. There was one comment on the Proposed Plan. The comment pertained to clarification of the requirement of marker fabric as it relates to site filling and development. Appendix A contains the DNREC's response to the comment. The issue brought forth in the comment did not change the proposed remedial action; therefore, the Proposed Plan is adopted as the Final Plan.

Remediation will consist of the following activities:

1. Placement of a marker fabric beneath a soil cap comprised of at least 2 feet of DNREC-approved, clean fill material to eliminate exposure to surface and subsurface soils contaminated with elevated concentrations of metals and SVOCs. "Hardscaped areas" are excluded from this requirement. All site work, including the installation of utility corridors, is to be performed in accordance with the following DNREC-approved plans: Contaminated Materials Management Plan (CMMP) and a Remedial Action Work Plan.
2. Issuance and implementation of an Operation and Maintenance (O&M) Plan for the Site to assure that all protective measures are properly maintained following site construction.
3. Recording of an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) by the site owner. The covenant will include a restriction on digging into site soils beneath the soil cap without prior written DNREC approval, as well as the restriction that no drinking water wells will be installed or groundwater withdrawn from any well on the Site without the prior written approval of DNREC.

**Approval:**

**This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.**

Kathleen Stiller Banning, Program Manager II  
Site Investigation and Restoration Branch



## PROPOSED PLAN OF REMEDIAL ACTION

**Marina Overlook Site**  
Wilmington, DE  
DNREC Project No. DE-1328



Former Crown Enterprises Property

Former Eastern States Property

Former Ed and Sons Property

February 2008

Delaware Department of Natural Resources and Environmental Control  
Division of Air and Waste Management  
Site Investigation & Restoration Branch  
391 Lukens Drive  
New Castle, Delaware 19720

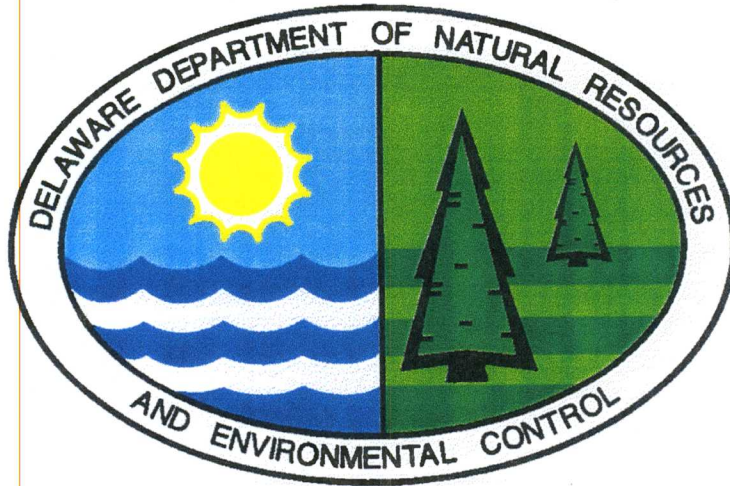
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# PROPOSED PLAN OF REMEDIAL ACTION

**Marina Overlook Site**  
New Castle, DE  
DNREC Project No. DE-1328



**Approval:**

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

|   |              |
|---|--------------|
|  | Approved by: |
| James D. Werner, Director<br>Division of Air & Waste Management                     |              |
| <i>25 Feb 2008</i>  |              |
| Date  |              |

## Marina Overlook Site (DE-1328)

### **What is the Marina Overlook Site?**

The Site is located on Industrial Street, which is on the Seventh Street Peninsula in Wilmington, Delaware. It is comprised of three (3) vacant lots, one of which is mostly cleared and two (2) of which are mostly covered in vegetation (Figure 1). The Site is a Delaware-certified Brownfield property, with future plans for mixed-use (residential and commercial) development. The current owners are Peninsula Ventures V, LLC, Peninsula Ventures VI, LLC and Peninsula Ventures VII, LLC.

**Tax Parcel Numbers:** 26-045.00-013, 26-045.00-020, 26-045.00-023

**Address:** 701 Industrial Street, 500 Industrial Street, and 1125 East Seventh Street in Wilmington, DE

**Nearest major intersection:** Seventh Street and Industrial Street

**Area:**  $5.3 + 3.4 + 4.5 = 13.2$  acres

**Surrounding Property:** The Peninsula Ventures Site is located to the south and east of the Site

**Site Utility:** There are no utilities currently servicing the Site. Once developed, however, the property will have public water and sewer service supplied by the City of Wilmington.

**Surface water:** The Brandywine Creek is located approximately 500 feet northeast and west of the Site. The Christina River is located approximately 300 feet southwest of the Site.

**Groundwater:** Shallow groundwater at the Site flows toward the Brandywine Creek.

### **What happened at the Marina Overlook Site?**

The parcel, located at 701 Industrial Street, was a part of the former City of Wilmington municipal landfill from the 1940s to the 1960s. This part of the peninsula was later overlain with material from Wilmington's incinerators. Most recently, this parcel was owned by Ed and Sons Salvage, Inc. on which they operated a salvage yard during the 1980s and 1990s. The majority of this parcel is now cleared.

The parcels located at 500 Industrial Street (Former Eastern States Property) and 1125 East Seventh Street (Former Crown Enterprises Property) were historically a part of the Jackson and Sharp American Car Foundry operations in the later 1800s into the early 1900s. At that time, numerous rail lines were located on both properties. There was also an architectural mill constructed on the Eastern States property in the early 1900s. The structure was demolished in the mid 1960s, however, the foundation still remains on the property. Both of these parcels are now almost entirely covered in vegetation.



### **What is the environmental problem at the Marina Overlook Site?**

Historic industrial operations and filling activities likely resulted in the increased levels of semi-volatile organic compounds (SVOCs) and metals detected in soils. Elevated metals concentrations were also detected in groundwater. The Site is located within the City of Wilmington Groundwater Management Zone (GMZ) which restricts groundwater withdrawal and usage.

BrightFields, Inc. collected 42 soil samples and six (6) groundwater samples on the Site. The soil samples were collected from test pits excavated on all parcels and the groundwater samples were collected from six (6) monitoring wells installed on-site during a sampling event in October 2004. Arsenic, antimony, iron, lead, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were determined to be the contaminants of concern for an unrestricted-use scenario based on soil sample results. Lead was determined to be the only contaminant of concern in groundwater.

If the on-site soil contamination is not remediated, it could potentially pose an unacceptable human health risk to construction workers performing development activities at the Site, as well as, people residing or working at the Site in the future. As a condition of the City of Wilmington GMZ established in 2001, groundwater from beneath the Site cannot be utilized without the prior written approval of DNREC.

### **What does the owner want to do at the Marina Overlook Site?**

The property owner is planning to build mixed-use facilities, both residential and commercial, on the Site upon completion of the remedial action.

The plans for site development will include clearing, filling to raise the property out of the floodplain, capping and construction of residential and commercial facilities.

### **What clean-up actions are needed at the Marina Overlook Site?**

Since the layout of the construction is unknown at this time, the entire site will be remediated to meet unrestricted use (residential) standards. DNREC's proposed clean-up action involves the placement of a marker fabric atop current surface soils and then the placement of at least 2 feet of DNREC-approved clean fill material.

These actions need to be taken in order to eliminate exposure to surface and subsurface soils that pose an unacceptable level of risk.

The following remedial actions are proposed for the Marina Overlook Site:

1. Placement of a marker fabric atop current surface soils to indicate the presence of contaminated soil beneath it, and then the placement of at least 2 feet of DNREC-approved, clean fill material to eliminate exposure to surface and subsurface soils contaminated with elevated concentrations of metals and SVOCs. All site work, including the installation of utility corridors, is to be performed in accordance with the following DNREC-approved plans: Contaminated Materials Management Plan (CMMP) and a Remedial Action Work Plan.



2. Issuance and implementation of an Operation and Maintenance (O&M) Plan for the Site to assure that all protective measures are properly maintained following site construction.
3. Recording of an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) by the site owner. The covenant will include a restriction on digging into site soils beneath the soil cap without prior written DNREC approval, as well as the restriction that no drinking water wells will be installed or groundwater withdrawn from any well on the Site without the prior written approval of DNREC.

### **What are the long-term plans for the Marina Overlook Site after the cleanup?**

The long-term plans for this property include mixed-use (residential and commercial) development. To satisfy DNREC's requirements, an O&M Plan will be submitted to DNREC for approval at the completion of the cleanup. This Plan must be implemented in order to maintain the integrity of the remedy at the Site so as to protect future commercial workers and residents, as well as to maintain the safety of workers during future site redevelopment. Current and future owners of the property, as well as any subsequent sub-parcels, will be responsible for the implementation of all aspects and costs associated with the approved remedy. These responsibilities include, but are not limited to, all requirements of the Final Plan of Remedial Action, the following DNREC-approved Plans, O&M Plan and CMMP, and the adherence to the requirements and conditions established in the uniform environmental covenant for the Site.

DNREC will potentially be able to issue a Certification of Completion of Remedy (COCR) for the Site following the placement of the 2-foot soil cap, the issuance of the O&M Plan and the recording of the uniform environmental covenant on the property deed.

### **How can I find additional information or comment on the Proposed Plan?**

The complete file on the Site, including the Brownfield Remedial Investigation, is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

The 20-day public comment period begins on **March 2, 2008** and ends at close of business (4:30 PM) on **March 24, 2008**. Please send written comments to the DNREC office or call Lindsay J. Hall, Project Manager, at 302-395-2600.

## **What is a *Proposed Plan*?**

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean-up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the environmental issues at the site, if any. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC and/or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp>.

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC sometimes holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC does not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.

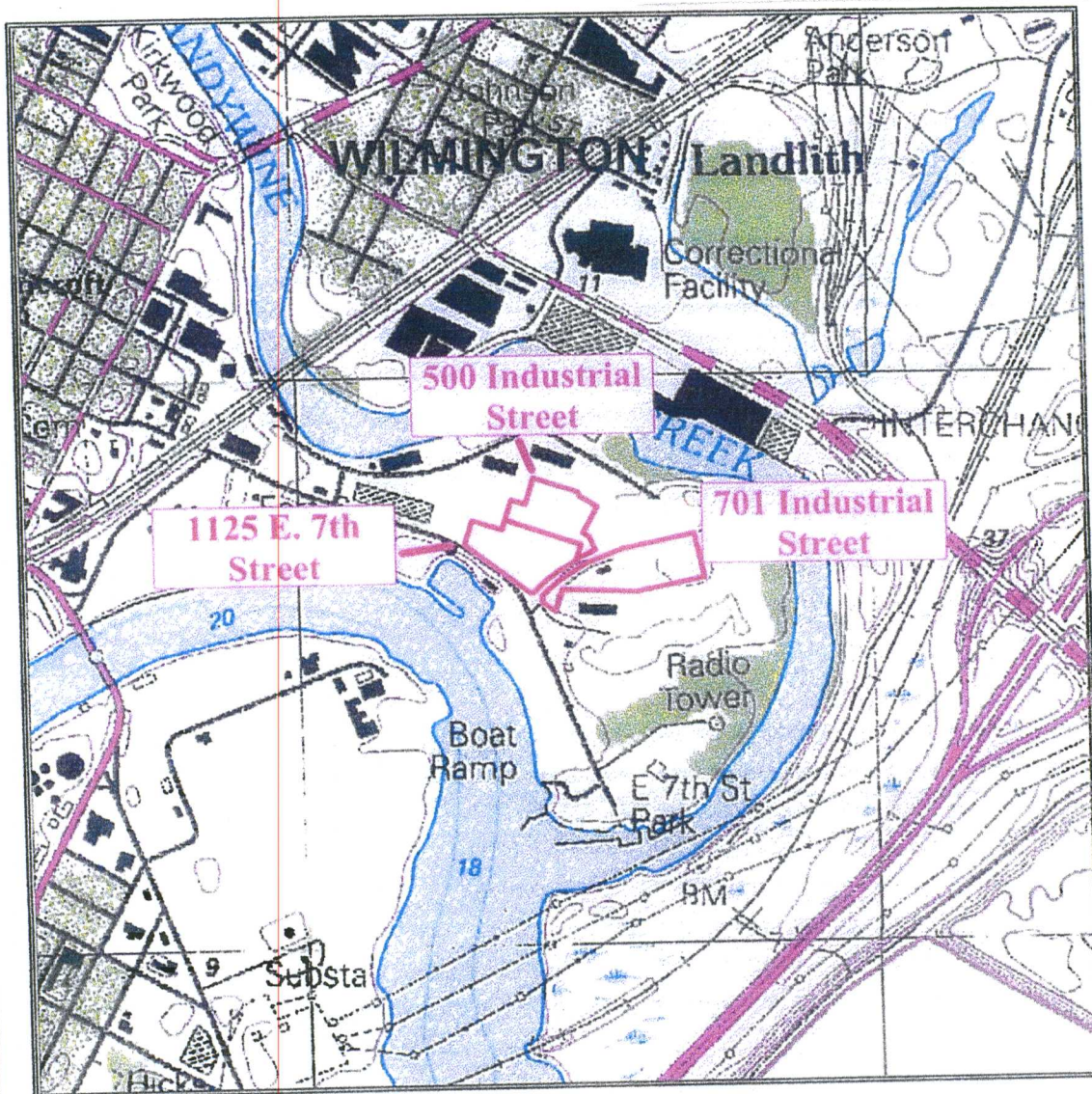
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## Glossary of Terms Used in this Proposed Plan

|   |   |
|---|---|
| <b>Brownfield</b>                                     | Property that is vacant or underutilized because of the perception or presence of an environmental problem.   |
| <b>BrightFields, Inc.</b>                             | HSCA-certified environmental consultant   |
| <b>Certified Brownfield</b>                           | A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.  |
| <b>Contaminant of Concern (COC)</b>                   | These are potentially harmful substances at concentrations above acceptable levels (e.g. metals).   |
| <b>Certification of Completion of Remedial (COCR)</b> | A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.  |
| <b>Exposure</b>                                       | Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).                                   |
| <b>Final Plan of Remedial Action</b>                  | DNREC's plan for cleaning up a hazardous site which has already been reviewed by the public and finalized.  |
| <b>Hazardous Substance Cleanup Act (HSCA)</b>         | Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substance releases and requires cleanup with oversight of the Department. |
| <b>Proposed Plan of Remedial Action</b>               | A plan for cleaning up a hazardous site issued by DNREC that is subject to public comments.   |
| <b>Risk</b>   | Likelihood or probability of injury, disease, or death.   |
| <b>Uniform Environmental Covenants Act (UECA)</b>     | Title 7, <u>Del. Code</u> Chapter 79, Subtitle II. The law that enables DNREC to impose activity and/or use restrictions on a site.   |






# **FIGURE 1 - Site Location Map**

From USGS Wilmington South Quadrangle  
Wilmington Del - N.J.  
7.5 minute series, 1993

Marina Overlook  
E. 7th Street Peninsula  
Wilmington, Delaware

0 1,000  
  
**SCALE (feet)**



## APPENDIX A

### MARINA OVERLOOK (DE-1328) Proposed Plan of Remedial Action Department Responsiveness Summary for Public Comments

**Comments from BrightFields, Inc.:** A comment letter was received from BrightFields, Inc. on Monday, March 24, 2008. In the letter was a request for clarification of the requirement for marker fabric as it relates to site filling and development.

**Response:** The intention of a marker fabric or marker layer is to provide visible distinction between the presence of contaminated soils and DNREC-approved clean fill material placed as a remedial cap. As it pertains to the Marina Overlook site, DNREC expects that a marker layer be placed directly beneath any area on which the required 2 feet of DNREC-approved clean fill material is located.

At this time, a development plan has not been presented to the Department. However, if the soil cap construction has not been completed at the time a development plan is implemented, those areas which are designated for “hardscaping”, e.g. concrete building foundations, asphalt-paved roadways, etc., will not be required to have marker fabric placed atop contaminated soils. The “hardscaping material” will sufficiently eliminate any exposure pathway to contaminated soils on site.

A Certification of Completion of Remedy will only be issued to the property owner when either a marker layer and 2 foot soil cap or “hardscaping” has been placed across all areas of the site.